

Mineral Industry Surveys

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ZINC IN NOVEMBER 2005

Domestic mine production (recoverable) of zinc in November of 52,300 metric tons (t) was about 19% less than that in October and about 8% less than that in November 2004, according to the U.S. Geological Survey. Estimated smelter production of 17,700 t of refined zinc was about 10% more than that in October and about 25% less than that in November 2004. Apparent consumption of 67,300 t of zinc was about 13% higher than that in October and 30% lower than that in November 2004.

The Platts Metals Week average composite price for North American Special High Grade zinc increased to 78.47 cents per pound in November. The price was 8% (5.81 cents per pound) higher than in October and 43% (23.66 cents per pound) higher than in November 2004. The average London Metal Exchange Ltd. (LME) cash price increased to \$1,610.61 per metric ton of zinc, an 8% increase compared with the October price, and 47% higher than that in November 2004. During November, global LME zinc stocks dropped by 46,550 t to 437,800 t.

Korea Zinc Co. has announced it will be closing its Big River zinc smelter at Sauget, IL, in February. The smelter has a 90,000-metric-ton-per-year zinc production capacity. In a related story, there was confirmation Asarco Incorporated's

Tennessee zinc mines would not reopen. Asarco is under Chapter 11 bankruptcy protection, and these mines produced low-iron-content zinc concentrates that were needed for the Big River smelter to operate (CRU International Ltd., 2005).

The International Lead Zinc Study Group predicted world zinc mine production to finish the year 2005 up by 3.5% compared with that of 2004, and further predicted mine production in 2006 would be up by another 4.2% (CRU International Ltd., 2005).

The Defense National Stockpile Center aggregated cash disposal (sale) of zinc in November, under the monthly Basic Ordering Agreement DLA-Zinc-004, was 2,830 t (approximately 3,120 short tons), with an approximate value of \$4.70 million (Defense National Stockpile Center, 2005).

References Cited

CRU International Ltd., 2005, CRU Monitor—Lead & Zinc Concentrates: CRU International Ltd., December, 12 p.

Defense National Stockpile Center, 2005, Stockpile announces zinc BOA sales for November 2005: Fort Belvoir, VA, Defense National Stockpile Center news release, December 5, 1 p.

$\label{eq:table 1} \text{TABLE 1} \\ \text{SALIENT ZINC STATISTICS}^1$

(Metric tons, unless otherwise specified)

| | 2004 | | 20 | 005 | |
|---|------------|---------------------|------------|---------------------|----------------------|
| | January- | | | | January- |
| | December | September | October | November | November |
| Production: | | • | | | |
| Mine, zinc content of concentrate | 739,000 | 64,200 | 66,800 | 54,300 | 684,000 |
| Mine, recoverable zinc | 713,000 | 61,800 | 64,400 | 52,300 | 659,000 |
| Smelter, refined zinc | 320,000 | 17,900 ^e | 16,100 e | 17,700 ^e | 179,000 e |
| Consumption: | | | | | |
| Refined zinc, reported | 421,000 | 34,800 | 34,700 | 33,100 | 371,000 |
| Ores ^e (zinc content) | 727 | 61 | 61 | 61 | 666 |
| Zinc-base scrap ^e (zinc content) | 191,000 | 15,900 | 15,900 | 15,900 | 175,000 |
| Copper-base scrap ^e (zinc content) | 176,000 | 14,700 | 14,700 | 14,700 | 161,000 |
| Aluminum-and magnesium-base scrap ^e | | | | | |
| (zinc content) | 1,430 | 120 | 120 | 120 | 1,320 |
| Total ^e | 790,000 | 65,500 | 65,400 | 63,800 | 709,000 |
| Apparent consumption, metal ² | 1,160,000 | 65,700 | 59,300 | 67,300 | 863,000 3 |
| Stocks of refined (slab) zinc, end of period: | | | | | |
| Producer ⁴ | XX | 7,470 ^e | 7,020 e | 9,590 ^e | XX |
| Consumer ⁵ | XX | 56,400 | 55,900 | 54,500 | XX |
| Merchant | XX | 10,200 | 10,200 | 10,200 | XX |
| Total | XX | 74,100 | 73,200 | 74,400 | XX |
| Shipments of zinc metal from Government stockpile | 31,500 | 3,710 | 3,010 | 2,830 | 20,100 |
| Imports for consumption: | | | | | |
| Refined (slab) zinc | 812,000 | 42,300 | 46,400 | NA | 548,000 ⁶ |
| Oxide (gross weight) | 103,000 | 12,300 | 7,670 | NA | 92,000 6 |
| Ore and concentrate (zinc content) | 231,000 | 556 | 16,700 | NA | 132,000 ⁶ |
| Exports: | | | | | |
| Refined (slab) zinc | 3,300 | 22 | 36 | NA | 761 ⁶ |
| Oxide (gross weight) | 14,400 | 1,680 | 1,370 | NA | 12,300 ⁶ |
| Ore and concentrate (zinc content) | 745,000 | 199,000 | 50,500 | NA | 726,000 ⁶ |
| Waste and scrap (gross weight) | 53,900 | 5,350 | 5,070 | NA | 46,000 ⁶ |
| Price: | | | | | |
| London Metal Exchange, average, | | | | | |
| dollars per metric ton | \$1,047.35 | \$1,397.08 | \$1,487.91 | \$1,610.61 | \$1,341.37 |
| Platts Metals Week North American | | | | | |
| Special High Grade, average, cents per pound | 52.47 | 67.89 | 72.66 | 78.47 | 65.24 |
| eEstimated NA Not available VV Not applicable | | | | | |

^eEstimated. NA Not available. XX Not applicable.

¹Data are rounded to no more than three significant digits; except prices; may not add to totals shown.

²Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

³Data based on reported consumption, stocks, and estimated trade data.

⁴Data from U.S. Geological Survey and American Bureau of Metal Statistics.

⁵Includes an estimate for companies that report annually.

⁶Includes data through October only.

 ${\bf TABLE~2}$ REFINED ZINC PRODUCED IN THE UNITED STATES 1

(Metric tons)

| | Beginning | | | Ending |
|------------------|---------------------|----------------------|----------------------|---------------------|
| Month | stocks ² | Production | Shipments | stocks ² |
| 2004: | | | | |
| November | 2,850 | 17,700 | 16,700 | 3,850 |
| December | 3,850 | 21,200 | 20,100 | 5,010 |
| January-December | XX | 212,000 | 212,000 | XX |
| 2005: | | | | |
| January | 5,010 | 14,700 | 15,500 | 4,290 |
| February | 4,290 | 15,600 | 15,100 | 4,820 |
| March | 4,820 | 18,500 | 17,500 | 5,790 |
| April | 5,790 | 16,400 | 15,300 | 6,810 |
| May | 6,810 | 15,900 | 16,400 | 6,360 |
| June | 6,360 | 12,500 | 10,800 | 8,070 |
| July | 8,070 | 17,700 ^e | 17,300 ^e | 8,390 e |
| August | 8,390 ° | 16,200 e | 16,000 ^e | 8,580 ^e |
| September | 8,580 ° | 17,900 e | 17,400 e | 9,040 e |
| October | 9,040 e | 16,100 e | 16,600 e | 8,590 e |
| November | 8,590 ° | 17,700 e | 16,700 e | 9,590 e |
| January-November | XX | 179,000 ^e | 175,000 ^e | XX |

^eEstimated. XX Not applicable.

Sources: U.S. Geological Survey and American Bureau of Metal Statistics.

 $\label{eq:table 3} \textbf{APPARENT CONSUMPTION OF REFINED ZINC} \\ \textbf{ACCORDING TO INDUSTRY USE AND PRODUCT}^1$

(Metric tons)

| | 2004 | | 2005 | | | | |
|-------------------------|-----------|-----------|---------|-----------------------|-----------------------|--|--|
| | January- | | | | January- | | |
| Industry and product | December | September | October | November ² | November ² | | |
| Galvanizing: | | | | | _ | | |
| Sheet and strip | 477,000 | 27,800 | 25,100 | 28,300 | 359,000 | | |
| Other | 167,000 | 7,200 | 6,000 | 8,000 | 112,000 | | |
| Total | 644,000 | 35,000 | 31,100 | 36,200 | 471,000 | | |
| Brass and bronze | 188,000 | 10,600 | 9,900 | 10,100 | 135,000 | | |
| Zinc-base alloy | 244,000 | 14,400 | 12,800 | 15,000 | 187,000 | | |
| Other uses ³ | 85,800 | 5,700 | 5,400 | 5,900 | 70,600 | | |
| Grand total | 1,160,000 | 65,700 | 59,300 | 67,300 | 863,000 | | |

¹Data are rounded to no more than three significant digits; may not add to totals shown.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Includes stocks held at locations other than smelters.

²Data based on reported consumption, stocks, and estimated trade data.

³Includes zinc used in making zinc dust, desilvering lead, powder, alloys, anodes, chemicals, castings, light metal alloys, rolled zinc, and miscellaneous uses not elsewhere specified.

TABLE 4 ${\sf AVERAGE\ ZINC\ PRICES}^1$

| | North | | |
|------------------|----------|---------|----------|
| | American | LME^2 | cash |
| Period | ¢/lb. | ¢/lb. | \$/t |
| 2004: | | | |
| November | 54.81 | 49.68 | 1,095.18 |
| December | 58.53 | 53.52 | 1,179.83 |
| January-December | 52.47 | 47.51 | 1,047.35 |
| 2005: | | | <u>.</u> |
| January | 61.54 | 56.51 | 1,245.81 |
| February | 64.49 | 60.14 | 1,325.81 |
| March | 66.49 | 62.47 | 1,377.33 |
| April | 63.03 | 58.96 | 1,299.81 |
| May | 60.46 | 56.39 | 1,243.23 |
| June | 61.73 | 57.85 | 1,275.33 |
| July | 57.96 | 54.16 | 1,194.08 |
| August | 62.94 | 58.88 | 1,298.05 |
| September | 67.89 | 63.37 | 1,397.08 |
| October | 72.66 | 67.49 | 1,487.91 |
| November | 78.47 | 73.06 | 1,610.61 |
| January-November | 65.24 | 60.84 | 1,341.37 |

¹Special High Grade.

Source: Platts Metals Week.

TABLE 5 $\mbox{U.S. EXPORTS OF ZINC}^1$

| | | | 2005 ² | | | | | |
|--------------------------------------|---------------|-------------|-------------------|-------------|---------------|-------------|--|--|
| | 2004 | | Octo | October | | o date | | |
| | Quantity | Value | Quantity | Value | Quantity | Value | | |
| Material | (metric tons) | (thousands) | (metric tons) | (thousands) | (metric tons) | (thousands) | | |
| Refined (slab) zinc | 3,300 | \$5,330 | 36 | \$58 | 761 | \$1,450 | | |
| Ore and concentrate (zinc content) | 745,000 | 413,000 | 50,500 | 43,900 | 726,000 | 445,000 | | |
| Waste and scrap (gross weight) | 53,900 | 48,300 | 5,070 | 6,230 | 46,000 | 49,900 | | |
| Powders, flakes, dust (zinc content) | 7,640 | 13,500 | 685 | 1,360 | 7,570 | 15,000 | | |
| Oxide (gross weight) | 14,400 | 19,800 | 1,370 | 1,970 | 12,300 | 19,500 | | |
| Chloride (gross weight) | 1,870 | 2,200 | 81 | 103 | 1,590 | 1,980 | | |
| Sulfate (gross weight) | 3,060 | 1,860 | 215 | 153 | 2,320 | 1,520 | | |
| Compounds, other (gross weight) | 194 | 711 | 67 | 81 | 932 | 781 | | |

¹Data are rounded to no more than three significant digits.

Source: U.S. Census Bureau.

²London Metal Exchange.

²Data for November 2005 were not available at time of publication.

 $\label{eq:table 6} \text{U.S. IMPORTS FOR CONSUMPTION OF ZINC}^1$

| | 2004 | | Octo | ober | Year to date | |
|--------------------------------------|---------------|-------------|---------------|-------------|---------------|-------------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Material | (metric tons) | (thousands) | (metric tons) | (thousands) | (metric tons) | (thousands) |
| Refined (slab) zinc | 812,000 | \$888,000 | 46,400 | \$64,700 | 548,000 | \$713,000 |
| Ore and concentrate (zinc content) | 231,000 | 98,700 | 16,700 | 14,500 | 132,000 | 94,400 |
| Waste and scrap (gross weight) | 10,800 | 7,740 | 1,060 | 1,000 | 6,980 | 6,160 |
| Powders, flakes, dust (zinc content) | 24,800 | 40,200 | 2,340 | 5,040 | 19,600 | 37,600 |
| Oxide (gross weight) | 103,000 | 89,000 | 7,670 | 9,780 | 92,000 | 106,000 |
| Chloride (gross weight) | 705 | 863 | 42 | 47 | 570 | 994 |
| Sulfate (gross weight) | 29,100 | 14,000 | 3,080 | 1,620 | 25,700 | 13,500 |
| Compounds, other (gross weight) | 4,660 | 4,230 | 488 | 435 | 5,480 | 5,000 |

¹Data are rounded to no more than three significant digits.

Source: U.S. Census Bureau.

TABLE 7 SHIPMENTS OF ZINC METAL FROM THE NATIONAL DEFENSE ${\rm STOCKPILE}^1$

(Metric tons)

| | Beginning | | Ending |
|------------------|-----------|-----------|-----------|
| Period | inventory | Shipments | inventory |
| 2004: | | | |
| November | 66,400 | | 66,400 |
| December | 66,400 | | 66,400 |
| January-December | XX | 31,500 | XX |
| 2005: | | | |
| January | 66,400 | 20 | 66,300 |
| February | 66,300 | 738 | 65,600 |
| March | 65,600 | | 65,600 |
| April | 65,600 | 220 | 65,400 |
| May | 65,400 | 301 | 65,100 |
| June | 65,100 | 2,960 | 62,100 |
| July | 62,100 | 2,600 | 59,500 |
| August | 59,500 | 3,680 | 55,800 |
| September | 55,800 | 3,710 | 52,100 |
| October | 52,100 | 3,010 | 49,100 |
| November | 49,100 | 2,830 | 46,300 |
| January-November | XX | 20,100 | XX |

XX Not applicable. -- Zero.

Source: Defense Logistics Agency.

²Data for November 2005 were not available at time of publication.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

 $\label{eq:table 8} \textbf{U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY}^{1,2}$

(Metric tons)

| | (| General impo | rts 2005 | Imports for consumption 2005 | | |
|--------------------------------------|---------|--------------|---------------|------------------------------|---------|--------------|
| Material and country | 2004 | October | Year to date | 2004 | October | Year to date |
| Ore and concentrate (zinc content): | 2004 | October | 1 car to date | 2004 | October | Teal to date |
| Australia | 27,900 | | 8,590 | 27,900 | | 8,590 |
| Ireland | 17,700 | 4,270 | 13,000 | 17,700 | 4,270 | 13,000 |
| Mexico | 6,530 | 3,030 | 27,200 | 6,530 | 3,030 | 27,200 |
| Peru | 178,000 | 8,880 | 80,800 | 178,000 | 8,880 | 80,800 |
| Other | 877 | 559 | 2,290 | 877 | 559 | 2,290 |
| Total | 231,000 | 16,700 | 132,000 | 231,000 | 16,700 | 132,000 |
| Blocks, pigs, or slab: | 231,000 | 10,700 | 132,000 | 231,000 | 10,700 | 132,000 |
| Australia | 7,940 | | 1 | 27,500 | 1,200 | 17,700 |
| Brazil | 26,400 | 5,320 | 38,800 | 26,400 | 5,320 | 38,900 |
| Canada | 501,000 | 21,900 | 365,000 | 501,000 | 21,900 | 365,000 |
| China | 301,000 | 21,900 | 363,000 | 16,500 | 474 | 1,350 |
| | | | | 16,500 | | 1,330 |
| Japan Vandalana | 2 210 | | | | | |
| Kazakhstan | 2,310 | | 5 020 | 2,310 | 2.520 | 2 410 |
| Korea, Republic of | 8,030 | 14000 | 5,030 | 31,900 | 2,520 | 3,410 |
| Mexico | 123,000 | 14,900 | 120,000 | 123,000 | 14,900 | 120,000 |
| Namibia | 47,900 | | | 47,900 | | |
| Peru | 25,600 | 73 | 235 | 30,500 | 73 | 834 |
| Other | 204 | | 57 | 3,970 | | 282 |
| Total | 743,000 | 42,200 | 529,000 | 812,000 | 46,400 | 548,000 |
| Dross, ashes, fume (zinc content) | 16,100 | 1,670 | 13,100 | 16,100 | 1,670 | 13,100 |
| Grand total | 990,000 | 60,600 | 674,000 | 1,060,000 | 64,800 | 692,000 |
| Oxide (gross weight): | | | | | | |
| Canada | 49,700 | 4,800 | 53,300 | 49,700 | 4,800 | 53,300 |
| China | 207 | 20 | 106 | 207 | 20 | 106 |
| Italy | 13,400 | | 13,300 | 13,400 | | 13,300 |
| Japan | 1,060 | 119 | 946 | 1,060 | 119 | 946 |
| Mexico | 33,200 | 2,260 | 19,400 | 33,200 | 2,260 | 19,400 |
| Netherlands | 4,700 | 308 | 4,160 | 4,700 | 308 | 4,160 |
| Other | 796 | 175 | 886 | 796 | 175 | 886 |
| Total | 103,000 | 7,670 | 92,000 | 103,000 | 7,670 | 92,000 |
| Other (gross weight): | | | | | | |
| Waste and scrap | 10,800 | 1,060 | 6,980 | 10,800 | 1,060 | 6,980 |
| Sheets | 2,500 | 553 | 2,720 | 2,500 | 553 | 2,720 |
| Powders, flakes, dust (zinc content) | 24,800 | 2,340 | 19,600 | 24,800 | 2,340 | 19,600 |

⁻⁻ Zero.

Source: U.S. Census Bureau.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Data for November 2005 were not available at time of publication.